The disempowered supervisors

The PhD report that was released towards the end of 2010 by the Academy of Science of South Africa (The PhD study, 2010) has provided some important, and much needed, quantitative data to support widely held suspicions regarding a decline in the graduation rates of these top-end students. While some of their recommendations to address this decline are commendable, their suggestion to increase the number of students sent abroad for training has been widely viewed as nonsense (scarce-skills aside): it is tantamount to an admission of system failure.

I would argue that the system failure is largely a reflection of the strategy that the National Research Foundation (NRF) and the Department of Science and Technology are pursuing by consolidating their resources in Centres of Excellence, Research Chairs and incentive (or glue) funding. Centres of Excellence and Research Chairs are effectively built around established academics of note, who are mostly A-rated and B-rated researchers. The reputations of these academics are such that they should be able to access further funds with relative ease, from a diversity of sources. Importantly, these academics are recipients of the lion’s share of institutional research grants because centres and chairs demand a high level of matching support.

But the majority of rated researchers in South Africa are neither A-rated nor B-rated: they are C-rated. With the phasing out of the focus area programmes (which will be complete at the end of this year), there has been an intensification in competition for the dwindling resource base in more open programmes and a lowering of the overall success rate for grant applications. I suspect that C-rated researchers are being hit the hardest in this regard and that most no longer have access to sufficient funds to support research initiatives that could train PhD students. They comprise the majority of PhD trainers at the national level, yet they are no longer empowered to undertake the task of training PhD students. Glue funding does not provide enough money to C-rated researchers to support anything other than personal bucket-and-spade or desktop type research, so many of these researchers are not taking on students: why should they put a lot of effort into training new researchers when they could be using their time to increase personal research outputs? After all, publications count when trying to improve your ratings (thereby improving your chances of getting more money in the next application cycle), whereas students do not. These C-rated researchers are also being hit hardest by their own institutions, which no longer have the funds for wider disbursement owing to their commitments at both extremes of the research continuum: centres and chairs on the one hand, and institutional capacity development on the other.

So, I would argue that without improving the funding base available to the majority of South Africa’s researchers, we will not be able to take on the increased numbers of graduate students that we require. In part, this relates to the inadequate level of funding being set aside for students, but providing the bursary funds for a student is only half of the solution. Unless more C-rated scientists have access to research funds, South Africa will not be in a position to provide the research initiatives into which postgraduate students can meaningfully slot their own research project. And this applies as equally to the PhD student as it does to the honours student.

I believe that the report correctly identified the honours year as being the critical link in the pipeline to a PhD. And while I believe that the NRF’s response to this (by increasing the number and value of honours’ bursaries) is an appropriate one, it is meaningless unless there are sustainable, funded research programmes in which these students can continue their studies. Also of concern in this context is the response of at least one institution to this ‘windfall’ – to drop the entry requirements into honours. A decline in entry standards comes with an increase in the amount of work that needs to be done in order to maintain the production of a quality exit-level student. Given that postgraduate students likely gravitate towards research active staff, that additional work must come at the expense of something else. Philander suggested that a researcher’s time is better spent teaching and mentoring PhD students than in conducting research that results in published papers. Yet without the funds to support research programmes in which research students can get involved, we can neither teach nor mentor meaningfully.

References